Hundred Board Exploration

Facilitator Notes:

Display the Hundred Board on a document camera or overhead. Distribute a Hundred Board to each student and ask them to look for and share different patterns that they see. Create a list of the different patterns that students identify. As students are sharing, have them demonstrate their patterns on the displayed Hundred Board using transparent chips. Question them about the pattern they notice in the numbers, how are the values of the numbers changing in their pattern?

Extension: This same activity can be done for finding patterns in an Eighty Board or a Fifty Board. How does the Fifty Board compare to the Hundred Board?

Missing Pieces Activity:

Copy and cut out the Missing Pieces masters, shuffle up the missing pieces for students and distribute. Each student will receive a piece of a Hundred Board with one number filled in, they must fill in the rest of the missing pieces and find the 4 other students that have the same completed piece of the Hundred Board that they have (their “Piece Partners”). Once in their groups of 5, have the students discuss and compare with each other how they completed their missing pieces with the number they were given. Then facilitate a whole group discussion about what they discussed in their groups. Have students come up, demonstrate, and explain how they completed their missing pieces.

Hundred Board Arrow Paths

1) Explain how each of these arrows changes a number on a Hundred Board.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Create 2 different arrow paths that start at 12 and end at 46.Draw the arrows and each number it takes you to. Then below, write the number sentence that represents your arrow path.

12\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_46

Number Sentence:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

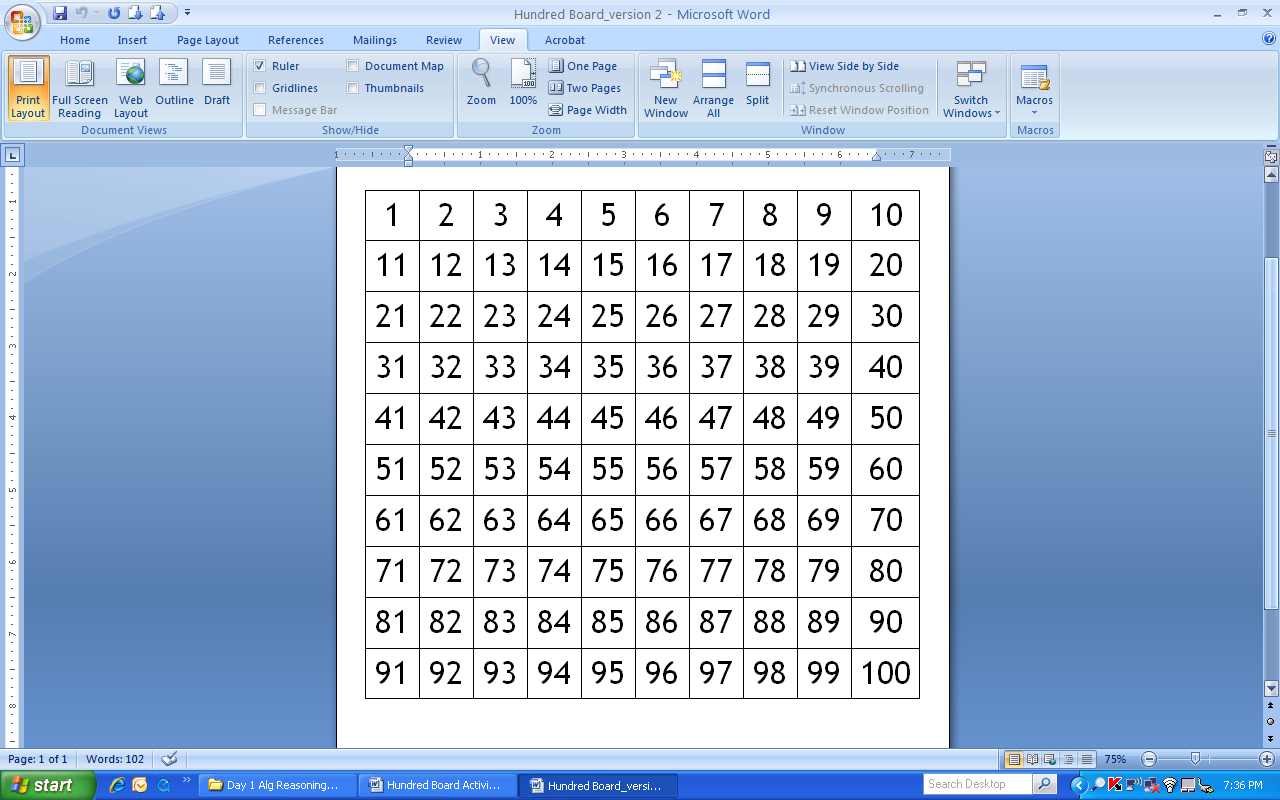
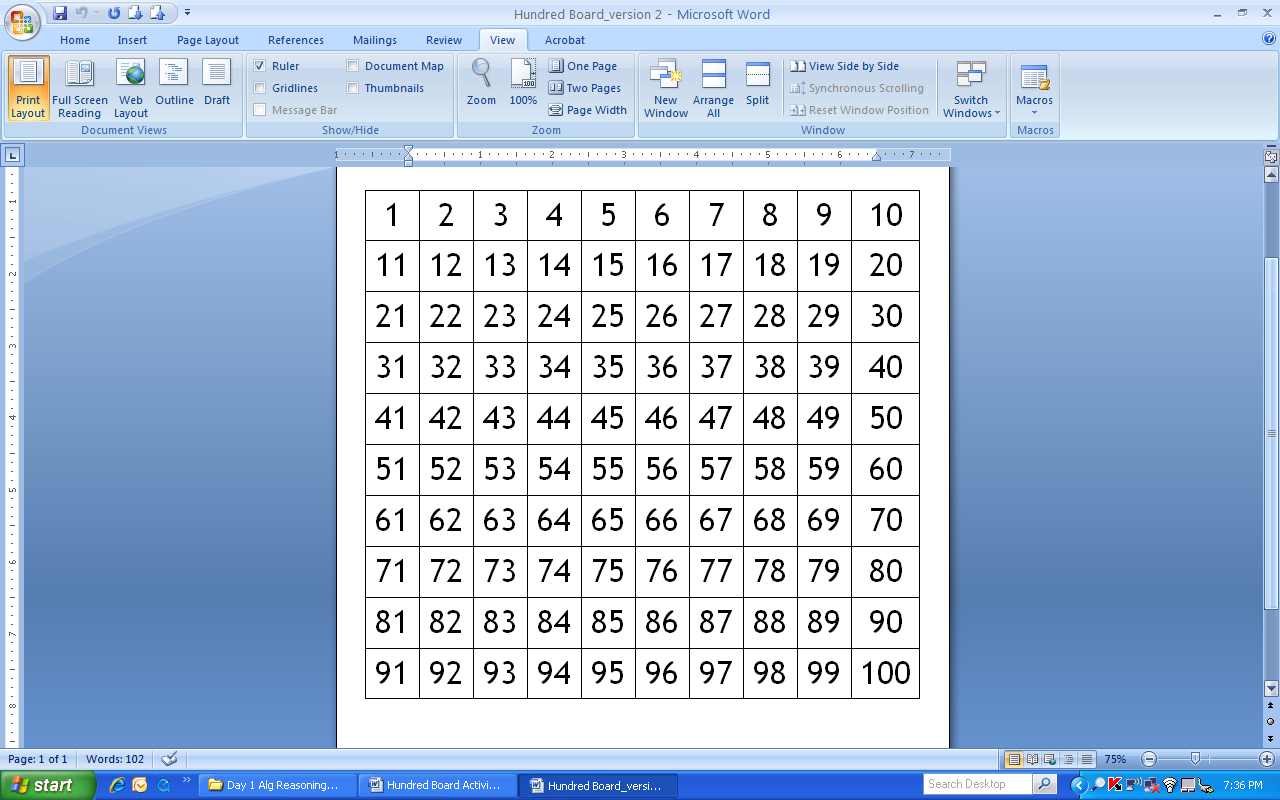
12\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_46

Number Sentence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

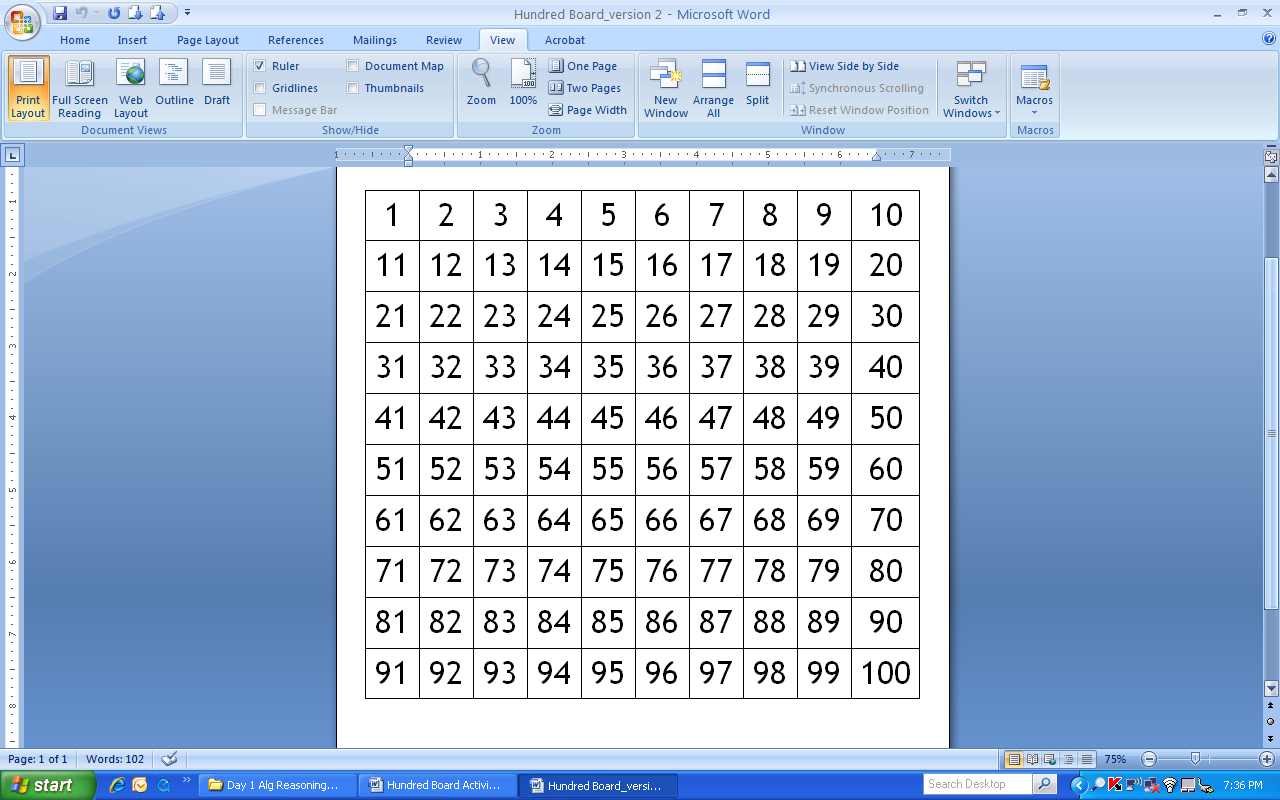
3) Create 2 different arrow paths that start and end at 78 so that on a Hundred Board the paths form either a triangle, parallelogram, pentagon or hexagon. (Each arrow path must create a different shape)

78\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 78\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_78 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_78

 Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Shape: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) Create an arrow path so that on a Hundred Board the path forms your favorite letter of the alphabet.

 Starts at \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ends at \_\_\_\_\_\_

4) Draw every possible pair of arrows that make NO change to a number. Explain why mathematically this happens.

5) Decide if a change in the order of the arrows will make the same change to a number.

A. Does make the same change to a number as ? Justify your answer with numeric examples from the Hundred Board.